

### REMARKS

This is a fully and timely response to the Official Action mailed on October 21, 2004. Reconsideration of the application in light of the following remarks is respectfully requested.

No amendments are made to the application by the present paper. Claims 37-43 were previously withdrawn under a Restriction Requirement, but have been reinstated by the recent Office Action. Consequently, claims 1-43 are currently pending for consideration.

With regard to the prior art, the Office Action rejected claims 37-40 as anticipated under 35 U.S.C. § 102(e) by U.S. Patent No. 6,202,088 to Corrigan et al. ("Corrigan"). For at least the following reasons, this rejection is respectfully traversed.

Claim 37 recites:

A method of registering set-top terminals within a cable television system, the method comprising:  
connecting a set-top terminal to said system without advance notice to operators of said system;  
transmitting a registration request message from said set-top terminal to a system controller of said system; and  
with said system controller, automatically registering said set-top terminal within said system upon receipt of said registration request message.  
(emphasis added).

In contrast, Corrigan fails to teach or suggest a method of registering a set-top terminal "without advance notice to operators of said system" that includes "transmitting a registration request message from said set-top terminal to a system controller of said system."

As cited in the Office Action, Corrigan mentions a traditional method of registering a set-top terminal on a system. The system headend (or control unit 110) transmits operation parameters (step 1010, Fig. 11) to a set-top terminal (or subscriber unit 130). The subscriber

unit then obtains the operation parameters and becomes functional and is registered on the system. (Corrigan, col. 7, lines 5-16).

*Nowhere does Corrigan teach or suggest that this process is conducted “without advanced notice to operators of said system.”* Moreover, the recent Office Action does not indicate how or where Corrigan contains such a teaching. Rather, this brief description of the conventional method of adding a set-top terminal to the system would likely be understood by one of skill in the art as imply that there was advanced notice to the operators of the system.

Additionally, Corrigan does not teach or suggest “transmitting a registration request message from said set-top terminal to the system controller of said system.” In this regard, the recent Office Action points to Corrigan at col. 5, lines 9-27. This portion of Corrigan describes various types of information that a set-top terminal may transmit to the headend, but does *not* mention the transmission of a “registration request” as claimed.

"A claim is anticipated [under 35 U.S.C. § 102] only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987) (emphasis added). See M.P.E.P. § 2131. Therefore, because Corrigan does not teach or suggest all the features of independent claim 37, the rejection based on Corrigan of claims 37-43 should be reconsidered and withdrawn.

Next, the recent Office Action rejects claims 1-3, 7-13, 16-24, 26 and 27 as being unpatentable under 35 U.S.C. § 103(a) over the combined teachings of U.S. Patent No. 5,574,495 to Caporizzo (“Caporizzo”) and Corrigan. Claims 4, 5 and 14 were rejected under 35 U.S.C. § 103(a) over the combined teachings of Caporizzo, Corrigan and U.S. Patent No. 6,463,588 to Jenkins et al. (“Jenkins”) and U.S. Patent No. 6,425,132 to Chappell

("Chappell"). Claims 6 and 15 were rejected under 35 U.S.C. § 103(a) over the combined teachings of Caporizzo, Corrigan and U.S. Patent No. 5,563,883 to Cheng ("Cheng"). Claims 25, 28-30 and 34-36 were rejected under 35 U.S.C. § 103(a) over the combined teachings of Caporizzo, Corrigan and Henderson (non-patent publication of record) ("Henderson"). Claims 31 and 32 were rejected under 35 U.S.C. § 103(a) over the combined teachings of Caporizzo, Corrigan, Henderson, Jenkins and Chappell. Claim 33 was rejected under 35 U.S.C. § 103(a) over the combined teachings of Caporizzo, Corrigan, Henderson and Cheng. Claim 41 was rejected under 35 U.S.C. § 103(a) over the combined teachings of Caporizzo and Corrigan. Claims 42 and 43 were rejected under 35 U.S.C. § 103(a) over the teachings of Corrigan, taken alone. For at least the following reasons, these rejections are respectfully traversed.

Applicant begins by noting that all of these rejections under § 103 rely upon the Corrigan reference. As shown in the rejection of claim 37 addressed above, Corrigan is prior art as against the present application only under § 102(e). The Corrigan patent is assigned to and owned by Motorola, Inc.

35 U.S.C. § 103(c) reads as follows:

Subject matter developed by another person, which qualifies as prior art only under one or more of subsections (e), (f), and (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

The present application is assigned to General Instrument Corp ("GI"). GI is a wholly owned subsidiary of Motorola, Inc and actually does business under the name of Motorola—Communications Broadband Sector (*See, [www.gi.com](http://www.gi.com)*).

At the time the invention of the present application was made, the inventors were employees of General Instrument and under an obligation to assign the invention to GI. GI

was, in turn, under a contract to merge with Motorola and, consequently, under an obligation to assign the invention of the present application as directed by Motorola. Note again that the subject matter of the Corrigan reference was, at that time and at the present time, also owned by Motorola.

Consequently, under the terms of 35 U.S.C. § 103(c), the Corrigan reference *cannot* be used as prior art against the present application because the subject matter of the of the Corrigan reference and the invention claimed here were, at the time the present invention was made, owned or subjected to an obligation of assignment to the same entity, i.e., Motorola. For at least this reason, the various rejections of claims 1-36 must be withdrawn.

Moreover, the various combinations of prior art cited above do not, in fact, teach or suggest all the features of the respective rejected claims. For example,

Claim 1 recites:

A method of locating set-top terminals within a cable television system and using location information for said terminals to improve efficient operation of said cable television system, the method comprising:

with a system controller, automatically determining which upstream plant of a plurality of upstream plants transmits a first message to said system controller from a particular set-top terminal that has not communicated with the system controller previously; and

identifying a downstream plant associated with the upstream plant that transmits said first message from said set-top terminal;

wherein a location of said set-top terminal within said system comprises an identification of said upstream plant and said associated downstream plant.

(emphasis added).

Similarly, claim 11 recites:

A system for locating set-top terminals within a cable television system and using location information for said terminals to improve efficient operation of said cable television system, comprising:

a system controller;

a population of set-top terminals;

a plurality of downstream plants with which said system controller transmits data messages to said set-top terminals; and

a plurality of upstream plants with which said set-top terminals transmit messages to said system controller;

wherein said controller determines a location of each set-top terminal within said system by determining which upstream plant transmits a first message to said system controller from a particular set-top terminal, a location of which set-top terminal has not been previously obtained by said controller; and identifying a downstream plant associated with that upstream plant that transmits said first message from said set-top terminal.

(emphasis added).

And, claim 20 recites:

A system for locating set-top terminals within a cable television system and using location information for said terminals to improve efficient operation of said cable television system, the system comprising:

means for determining which upstream plant of a plurality of upstream plants transmits a first message to a system controller from a particular set-top terminal, wherein a location of said particular set-top within said system was previously unknown; and

means for identifying a downstream plant associated with the upstream plant that transmits said first message from said particular set-top terminal;

wherein a location of said particular set-top terminal within said system comprises an identification of said upstream plant and said associated downstream plant.

(emphasis added).

The present Office Action concedes that Caporizzo does not teach or suggest the various elements of claims 1, 11 and 20 that require the set-top terminal to have been previously unknown to, or not located by, the system controller. Consequently, the Action cites to Corrigan on this point.

However, *if* the Corrigan reference were valid prior art, which it is not, it would still be the case, as demonstrated above, that Corrigan does not clearly teach or suggest that a set-top terminal registers and begins working on a system where that terminal was not previously in communication with or located by the system controller. The Office Action attempts to read this subject matter into Corrigan when it is not, in fact, there. Applicant respectfully

requests that the Office indicate, if possible, where Corrigan teaches or suggest such subject matter.

Furthermore, Caporizzo is cited as teaching a system controller that determines an upstream plant from among a plurality of upstream plants used by the set-top terminal to transmit an initial message, as recited in claims 1, 11 and 20. However, as Applicant has previously pointed out, Caporizzo only teaches storing an identification of a downstream plant for a set-top terminal and does not teach or suggest determining a set-top terminal's upstream plant from among a variety of possible upstream plants as claimed. The Office Action fails to respond again to Applicant's arguments on this point.

As previously explained, Caporizzo teaches that "*the headend 15 includes a database of the entire CATV network topology. As part of the cable system customer database each subscriber is identified by specifying a specific address. For example, a settop terminal 10 located on cable system trunk number 2, line extender 1, with settop Ser. number 7784 will have a terminal identification number of 217784.*" (Col. 6, lines 5-10) (emphasis added). The headend then uses the addresses already in the database to communicate *downstream* (i.e., to poll) specific set-top terminals. (Col. 6, line 10).

Thus, Caporizzo teaches a database *already at the headend* which includes addresses that specify a *downstream* path for each set-top terminal. These addresses are apparently not created by the headend, but are provided to the headend as set-top terminals are manually added to the system. *These addresses specify a downstream path to a set-top terminal and do not represent or designate an upstream plant for each set-top terminal. As will be appreciated by those skilled in the art, a downstream path to a set-top terminal is not necessarily the same thing as an upstream path used by that set-top terminal. Caporizzo is silent as to determining an upstream path for each set-top terminal.*

Consequently, in sum, Caporizzo and Corrigan, taken together, fail to teach or suggest that the headend or "system controller" "automatically determine[es] which upstream plant from a plurality of upstream plants transmits a first message to said system controller from a particular set-top terminal that has not communicated with the system controller previously," or similar subject matter, as recited in claims 1, 11 and 20.

"To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974)." M.P.E.P. § 2143.03. (emphasis added). *Accord*. M.P.E.P. § 706.02(j). Clearly, the cited combination of prior art references fails to teach or suggest many of the features of claims 1, 11 and 20. Therefore, for at least this additional rejection of claims 1-27 should be reconsidered and withdrawn.

Claim 28 recites:

A method of adding a set-top terminal to a cable television system, said method comprising:

selling a set-top terminal through a retail distribution model in which a subscriber purchases the terminal at a retail outlet and installs the terminal;

connecting said set-top terminal to said cable television system without advance notice to operators of said cable television system;

with a system controller, automatically determining which upstream plant of a plurality of upstream plants transmits a first message to said system controller from a particular set-top terminal; and

identifying a downstream plant associated with the upstream plant that transmits said first message from said set-top terminal;

wherein a location of said set-top terminal within said system comprises an identification of said upstream plant and said associated downstream plant.

As demonstrated above, Corrigan does not actually teach or suggest connecting a set-top terminal to a cable television system without advance notice to the system operators, as asserted in the recent Office Action. (Corrigan is not valid prior art, anyway.) Additionally,

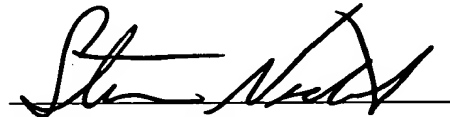
Caproizzo does not actually teach or suggest “automatically determining which upstream plant of a plurality of upstream plants transmits a first message to said system controller from a particular set-top terminal,” as asserted in the recent Office Action.

Consequently, the combination of prior art references applied against claim 28 fails to teach or suggest many of the features of claim 28. "To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974)." M.P.E.P. § 2143.03. (emphasis added). *Accord*. M.P.E.P. § 706.02(j). Therefore, for at least this additional rejection of claims 28-36 should be reconsidered and withdrawn.



For the foregoing reasons, the present application is thought to be clearly in condition for allowance. Accordingly, favorable reconsideration of the application in light of these remarks is courteously solicited. If any fees are owed in connection with this paper which have not been elsewhere authorized, authorization is hereby given to charge those fees to Deposit Account 18-0013 in the name of Rader, Fishman & Grauer PLLC. If the Examiner has any comments or suggestions which could place this application in even better form, the Examiner is requested to telephone the undersigned attorney at the number listed below.

Respectfully submitted,



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DATE OF DEPOSIT: January 21, 2005

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